

Application No.: 10/689,629

Docket No.: 2336-213

REMARKS

By this Amendment, claims 1-3, 5 and 6 are amended. Accordingly, claims 1-6 are pending in this application. Reconsideration of the application is respectfully requested.

The Office Action rejects claims 1-6 under 35 U.S.C. §112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regards as the invention.

The Office Action rejects claim 1 asserting that Applicants' referral to an amorphous and/or polycrystalline layer is confusing. Claim 1 is amended to obviate this rejection.

The Office Action rejects claim 3 asserting that the term "are" in line 3 should read "area." Claim 3 is amended as per the suggestion of the Examiner.

The Office Action rejects claim 6 asserting that the term "EG-group" etchant is vague and indefinite. Claim 6 is amended to obviate this rejection.

Accordingly, withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

The Office Action rejects claims 1, 3-4, and 6 under 35 U.S.C. §102(a) over Korean Patent No. 2003010083 to Ahn et al. This rejection is respectfully traversed.

Independent claim 1 recites, *inter alia*, a method for manufacturing a semiconductor laser device, comprising the step of "wet-etching the upper surface of the current blocking layer, so that at least one of the amorphous and polycrystalline layers is removed from the current blocking layer and the protrusions are reduced in size." The Office Action asserts that Ahn discloses wet-etching the second current blocking layer and refers to the Abstract of Ahn to support that assertion.

However, the Abstract of Ahn only discloses that "[a]fter removing the SiN mask, a final etch process is performed using a corrosive solution consisting of NH₄OH, H₂O₂ and ethylene glycol." The Office Action asserts that it would have been inherent that wet etching process use to treat the second current blocking layer would smooth or reduce the size of protrusions on the surface of the second current blocking layer. Applicants respectfully disagree.

Applicants submit that Ahn only discloses the etch process operative on the p-type cap layer and does not specifically address etching the current blocking layer. In support of this

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argument, Applicants submit that Ahn specifically discloses removing the SiN mask prior to etching, thus permitting the p-type cap to be etched. Unlike Ahn, the process disclosed by the Applicants leaves the mask 47 in place during the etching process, as is illustrated in Fig. 2d of the specification. Fig. 2d specifically shows the mask 47 still in place after the etching step has been performed. Because Ahn fails to disclose the etching of the current blocking layer, as recited in step d of claim 1, Applicants respectfully submit that claim 1 is patentable over Ahn. Accordingly, the rejection of claim 1 under 35 U.S.C. §102(a) is improper. Withdrawal of the rejection of claim 1 over Ahn is respectfully requested.

The argument above notwithstanding, the Applicants have rewritten claim 2 in independent form to include the patentable features of claim 1 and to correct typographically errors present in the original claim 2. No new matter is presented. Accordingly claim 2 is allowable at least based upon the arguments presented above regarding claim 1 as well as for additional features it recites.

Claims 3, 4 and 6 depend from allowable claim 2 and are likewise allowable at least based upon their dependency on an allowable base claim as well as for the additional features they recite. Accordingly withdrawal of the rejection of claims 3, 4 and 6 under 35 U.S.C. §102(a) over Ahn is respectfully requested.

The Office Action rejects claims 1 and 3 under 35 U.S.C. §102(b) over U.S. Patent No. 5,478,775 to Fujii. This rejection is respectfully traversed.

As disclosed above, independent claim 1 recites, *inter alia*, a method for manufacturing a semiconductor laser device, comprising the step of "wet-etching the upper surface of the current blocking layer, so that at least one of the amorphous and polycrystalline layers is removed from the current blocking layer and the protrusions are reduced in size." The Office Action asserts that Fujii discloses employing a gas, comprising HCL, that alternately etching and depositing the current blocking. Applicants respectfully disagree.

Fujii only discloses at column 2, lines 52-61, growing a current blocking layer on the first cladding layer by a metalorganic vapor phase epitaxy process. The disclosed process is operative to form small protrusions and not protrusions requiring the etching process recited in claim 1. Figs. 3B-3D of Fujii provide further disclosure that the current blocking layer of Fujii does not extend beyond the cladding layer and would not therefore require etching. Because Fujii specifically omits etching the current blocking layer, as recited in claim 1, Applicants

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respectfully submit that claim 1 is patentable over Fujii. Accordingly, the rejection of claim 1 under 35 U.S.C. §102(b) is improper. Withdrawal of the rejection of claim 1 over Fujii is respectfully requested.

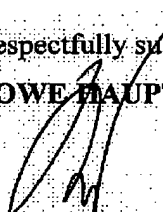
Notwithstanding the argument presented above, the rejection of claim 3 over Fujii is moot as claim 3 has been amended to depend from allowable claim 2.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-6 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,

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Attachment:
Petition for Extension of Time

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BJH/ERM/ayw

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